

MISSOURI. Conservationist

VOLUME 72, ISSUE 4, APRIL 2011 • SERVING NATURE & YOU



Listening is Critical to Success

Whether it's the "peent" of a spring woodcock, the gobble of a wild turkey, the drumming of a ruffed grouse or the call of a bobwhite quail, listening is a blessing and an important sense in the

outdoor world. Listening to our state's citizens is a critical component of successfully managing Missouri's and the nation's natural resources.

This spring we will be conducting 15 waterfowl workshops across Missouri. In these workshops we will present waterfowl season options within the federal framework and listen to waterfowl enthusiasts who are excited about fall migrations. Public meetings will be held on invasive species to inform and listen concerning this difficult and important issue. Monthly Regulations Committee meetings are open to the public and offer a regular opportunity for input into the rule-making process.

Thousands of public meetings and events will be held by Department staff throughout the state this year to promote conservation. Some will be small gatherings, such as garden or civic club meetings, while others will be large events such as Eagle Days and Great Outdoor Days. We will be sharing the latest conservation information and education at these meetings. More importantly, we will be listening intently to each of you as you pass on your ideas to improve Missouri's conservation system.

On March 1 the Department implemented an online e-Permits system that lets you buy and immediately print permits from any computer. Missourians were asking for this technology, and we listened. As with any new system there will be challenges such as printing permits on nondurable paper. Help us solve this challenge as we look for economical opportunities to help hunters with deer and turkey tagging procedures.

We will continue to actively engage Missouri citizens in conservation decisions and provide the best on-the-ground conservation program in the nation. If the Department doesn't



Involving youth enhances our conservation future.

always take your suggestion or idea, please don't assume we are not listening. Managing natural resources and promoting citizen participation is a complex business. Our goal is to listen intently and carefully, and to consider both human dimensions components and the best scientific management practices to conserve natural resources.

As we have listened to you, we've developed some mutual goals:

» To increase citizen involvement on conservation areas, nature centers

and shooting ranges

» To increase youth participation in the outdoors

» To increase and enhance access to conservation areas

» To increase our responsiveness to Missourians.

Recent surveys indicate we are doing well together. Gallup polls show nine out of 10 Missourians are interested in fish, forests and wildlife. Eighty-five percent of adult Missourians say the Department of Conservation is a name they can trust. We can and should build upon this successful relationship to improve and conserve Missouri's resources and outdoor heritage for future generations.

Missourians share a passion and commitment for the outdoors. It's a lifestyle choice to live in a state with world class outdoor adventures. Engage the Department, help us, guide us and challenge us to new conservation heights and frontiers. After all, we work for you—the Missouri citizen—to manage and protect Missouri's outdoor bounty. The future is in our hands together. In order to be successful, we must LISTEN to each other and be a cohesive team for Missouri's natural resources.

Tim Ripperger, deputy director

OUR MISSION: *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*



FEATURES

- 8 **Prairie Star Partners**
by Kyle Lairmore and Bill White
Promoting conservation using nontraditional methods
- 12 **Orchids: A View of Our Tropical Missouri**
by Gladys J. Richter
Areas of rugged terrain, calcareous soils and secret fens provide habitat for rare species.
- 18 **Hunting Hush-Mouthed Gobblers**
by Mark Goodwin
These strategies will help you tag a tom on days they don't gobble.
- 22 **Tag! You're It!**
by Travis Moore and Ross Dames
Angler reports improve fishing and support conservation research.

Cover: Turkey by Noppadol Paothong

Above: T-bar tags are the most commonly used visible fish tags. The visible part includes a unique number and contact information for reporting the tag. Photo by Cliff White.

MISCELLANY

- 2 **Letters**
4 **News & Events**
5 **Ombudsman**
28 **Plants & Animals**
30 **Places To Go**
32 **Hunting and Fishing Calendar**
32 **Contributors**
33 **Agent Notes**

FAST CATS

Mountain Lions in Missouri [March] is a great example of why

the *Conservationist* wins awards for excellence. I was very impressed that the article referenced a Feb. 16 trail camera photo in a magazine that arrived in my mail on March 2. To confirm that report and get it published so quickly is amazing. I congratulate you for being such a nimble publication.

Dan Drees, Eminence

A PEST BY ANY NAME

Throughout the excellent article *Stop the Spread!* [March], concerning the invasion of ornamental

pear trees, the author repeatedly uses the word "callery." That sent me to my Webster, and I determined that there isn't any such word. So, my question is: Is the writer calling "callery" pears something like "volunteers" or what?

Gene Williams, Gladstone

Editors' note: Callery pear and Bradford pear are both common names for Pyrus calleryana. By printing Callery in lower-case, we may have unintentionally made the word seem like an adjective, rather than a name. We regret any confusion.

WHO'S A PRETTY BIRD?

Wow! The full-page robin photo from the March issue [*Just a Robin*] deserves a funny caption and should be "poster-sized"! What a great shot! The continuing excellence of your staff photographers' work makes me believe that MDC should issue

high-quality posters for sale. Captioned or not, they would be scooped up quite vigorously. Keep up the fine work.

Barbara Anderson, St. Louis

I have always felt that the *Conservationist* has world-class photos for its readers to enjoy, but when I got my first glimpse of February's cover photo of the trumpeter swan, it took my breath away. The photo next to the story was every bit as awe-inspiring as the cover shot. "The magic light of sunrise," as he puts it, makes them both incredible. Great job, Danny Brown!

Linda Whitener, Glenallen

BALANCING ACT

Thomas Draper's "Note to Our Readers" [February] was an outstanding rendition of the inclusive and comprehensive approach that our Conservation Commission follows in serving our state. It serves as a reminder to all of us that we must ensure not only a deep understanding of the needs that exist in caring for our precious natural resources but in also connecting them to the significant benefits that they bring to our well-being as a collective humanity. That connection is characterized by the following thoughts of St. Augustine: "Men go forth to wonder at the heights of mountains, the huge waves of the sea, the broad flow of the rivers, the vast compass of the ocean, the courses of the stars: and they pass by themselves without wondering."

Yes, the wonderment is in all of these creations including ourselves and the challenge is in that balancing of needs and securing of the resources to allow the greatest of options to be pursued.

As you know, we struggle with these same issues in Parks and Recreation every day. We appreciate and value the incredible work that has been done by the Commission in the past and look forward to the many successes you will experience in the future. Please let us know how we can better support your efforts and thank you for all that you have done to support ours. We are in this together.

J. Thomas Lovell, Jr. CPRP

Administrator, Lee's Summit Parks & Recreation



Reader Photo

RINGING IN SPRING

Danny McMurphy of Sullivan captured this image of bluebells in bloom at Meramec Conservation Area. "I found this patch as I was walking from the main trail head toward the Meramec River to locate a heron rookery," said McMurphy. "You can actually start running into the bluebells as soon as you leave the parking lot." McMurphy is a member of the Miramiguoa Chapter of the Missouri Master Naturalists and the Membership Chairman for the Ozark Trail Association. He enjoys hiking, backpacking, canoeing and taking photos of nature and his family.



DEPARTMENT HEADQUARTERS

Phone: 573-751-4115
Address: PO Box 180,
Jefferson City 65102-0180

REGIONAL OFFICES

Southeast/Cape Girardeau: 573-290-5730
Central/Columbia: 573-884-6861
Kansas City: 816-655-6250
Northeast/Kirksville: 660-785-2420
Southwest/Springfield: 417-895-6880
Northwest/St. Joseph: 816-271-3100
St. Louis: 636-441-4554
Ozark/West Plains: 417-256-7161

SUBSCRIPTIONS

Phone: 573-522-4115, ext. 3856 or 3249
Address: Circulation, PO Box 180, Jefferson City 65102-0180
E-mail: Subscriptions@mdc.mo.gov

Conservationist online services: Subscribe to the magazine, update your mailing address, or sign up to receive an e-mail when the latest issue is available online at www.MissouriConservation.org/15287

Cost of subscriptions: Free to Missouri households
Out of State \$7 per year
Out of Country \$10 per year

Please allow 6–8 weeks for delivery of your first issue.

OMBUDSMAN QUESTIONS

Phone: 573-522-4115, ext. 3848
Address: Ombudsman, PO Box 180,
Jefferson City 65102-0180
E-mail: Ombudsman@mdc.mo.gov

EDITORIAL COMMENTS

Phone: 573-522-4115, ext. 3847 or 3245
Address: Magazine Editor, PO Box 180,
Jefferson City 65102-0180
E-mail: Magazine@mdc.mo.gov

READER PHOTO SUBMISSIONS

Address: Missouri Conservationist, Reader Photo,
PO Box 180, Jefferson City 65102-0180
E-mail: Readerphoto@mdc.mo.gov

Don't Get Scammed—Do not give any information to anyone who comes to your door soliciting *Conservationist* subscriptions. It could be a scam. Get as much information as possible and then contact your regional Missouri Department of Conservation office, police department or the Missouri Consumer Protection Hotline at 1-800-392-8222.

MDC Online

Discover more about nature and the outdoors through these sites.

Blog: www.MissouriConservation.org/node109
Facebook: www.facebook.com/MDOnline
Flickr: www.MissouriConservation.org/20010
Kid's site: www.XplorMo.org
Missouri Conservationist website:
www.MissouriConservation.org/3939

MDC Web site: www.MissouriConservation.org
Nature Shop: www.mdcNatureShop.com
Twitter: www.twitter.com/MDC_Online
www.twitter.com/Nature_Videos
YouTube: www.youtube.com/user/moconservation

Kids' Magazine



Six times a year we'll bring you eye-popping art, photos and stories about Missouri's coolest critters, niftiest natural places, liveliest outdoor activities and people who've made a living in the wild. Come outside with us and **XPLOR!**

Ages: 7–12

Missouri residents: FREE (one subscription per household)

Out of state: \$5 per year; Out of country: \$8 per year

A guardian's name and address is required with the subscription.

Please allow 6–8 weeks for delivery of your first issue.

SIGN UP NOW!

www.XplorMo.org
573-522-4115, ext. 3856 or 3249

MISSOURI. Conservationist

GOVERNOR Jeremiah W. "Jay" Nixon

THE CONSERVATION COMMISSION

Don C. Bedell
Don R. Johnson
William F. "Chip" McGeehan
Becky L. Plattner

Director Robert L. Ziehmer
Deputy Director Thomas A. Draper
Deputy Director Tim D. Ripperger
General Counsel Tracy E. McGinnis
Internal Auditor Nancy R. Dubbert

DIVISION CHIEFS

Administrative Services Carter Campbell
Design and Development Jacob Careaga
Fisheries Chris Vitello
Forestry Lisa G. Allen
Human Resources Thomas Neubauer
Outreach & Education Mike Huffman
Private Land Services Mike Hubbard
Protection Larry D. Yamnitz
Resource Science Mike Kruse
Wildlife DeeCee Darrow

CONSERVATIONIST STAFF

Editor In Chief Ara Clark
Managing Editor Nichole LeClair Terrill
Art Director Cliff White
Staff Writer Bonnie Chasteen
Staff Writer Jim Low
Photographer Noppadol Paothong
Photographer David Stonner
Designer Stephanie Thurber
Artist Mark Raithel
Circulation Laura Scheuler

The *Missouri Conservationist* (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. Postmaster: Send correspondence to Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-522-4115, ext. 3856 or 3249. Copyright © 2011 by the Conservation Commission of the State of Missouri.

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, PO Box 180, Jefferson City, MO 65102, 573-751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

Printed with soy ink



An angler uses a new cleaning station at Shepherd of the Hills Hatchery at Lake Taneycomo. Stations like this one help stop the spread of aquatic invasive species such as didymo.

Rock Snot Prevention

The latest invader to threaten Missouri sounds awful, and it could be even worse than its name. *Didymosphenia geminata*, commonly known as “didymo” or “rock snot,” is a type of algae that forms dense mats on stream bottoms. It has gained footholds in streams worldwide, including some of the most revered trout waters on Earth. The infestation nearest to Missouri is in the White River just south of the Missouri-Arkansas border.

The jury is still out concerning didymo’s possible ecological effects. It definitely is bad news for anglers, though. Stringy algae threads catch on hooks from dry flies to crankbaits, making fishing nearly impossible.

MDC has been holding public open-house fo-

runs to help educate anglers and boaters about rock snot. The last of these will take place at 6 p.m. April 7 at the Emory Melton Inn and Conference Center at Roaring River State Park and at 6 p.m. April 11 at the James Memorial Library, 300 W. Scioto St., St. James.

Contamination of recreational equipment, such as boats, life jackets and fishing gear, particularly waders, is the most common way for didymo to spread. MDC is considering regulation changes to reduce this risk, but Missourians can take preventive action on their own right now.

To avoid spreading rock snot, remember: “Check. Clean. Dry.”

» **Check** all gear and equipment and remove any visible algae. Do not dispose of algae

by putting it down a drain or into bodies of water.

» **Clean** all gear and equipment with a solution of 2-percent bleach, 5-percent saltwater or dish detergent. Allow all equipment to stay in contact with the solution for at least one minute. Soak all soft items, such as felt-soled waders and life jackets, in the solution for at least 20 minutes.

» **Dry** all gear and equipment in the sun for at least 48 hours.

Replacing felt-soled waders with rubber-soled models also reduces the risk of spreading rock snot and other invasive species.

Share the Harvest Donations Rise

Missouri hunters donated 50,000 more pounds of venison to needy families through the Share the Harvest program during the 2010–2011 hunting season than the previous year. However, organizers say the program still has tremendous potential for growth.

Share the Harvest is a cooperative effort of MDC, the Conservation Federation of Missouri and communities statewide. Conservation agents coordinate the efforts of local civic groups, food banks, meat processors and sponsors. Additional financial support from MDC and other statewide sponsors pays for processing of whole deer donated by hunters. Hunters also can donate part of the venison they bring to meat processors.

Last year, hunters donated more than 5,000 whole deer, which produced in excess of 150 tons of lean ground venison. Hunters also made partial donations of 4,122 pounds, bringing the season total to 305,643 pounds.

To put this in practical terms, Share the Harvest gathered enough meat last year to supply the annual protein needs of 550 four-person families.

Conservation Federation of Missouri Executive Director Dave Murphy says he sees no reason why Share the Harvest could not collect 250 tons of venison annually. Addressing Conservation Federation of Missouri members at their annual meeting Feb. 26, MDC Director Robert Ziehmer said that funding no longer is the main obstacle to increasing venison donations. He said MDC is exploring ideas for encouraging more hunters to donate deer.

Cicadas are Coming

Brides-to-be, take note. If you are planning an outdoor wedding this spring, you probably should provide earplugs for guests along with packets of rice. You are going to have a few thousand extra and very noisy guests.

The good news is, your uninvited guests—periodical cicadas—will sing a wedding song. The bad news? What cicadas consider romantic most people find annoying at best.

Periodical cicadas are different from the familiar annual cicadas, which emerge from the ground in

late summer. Periodical cicadas emerge in “broods” every 13 or 17 years, depending on the brood. The geographic extent can span several states.

The enormous number of cicadas emerging at one time swamps birds and other cicada predators with more juicy insect food than they can



ASK THE OMBUDSMAN

Q: Is it permissible for me to reduce the size of my e-Permits to make them easier to fit in my wallet?

A: Yes, reducing the permits is allowed as long as they remain easily readable. More information about e-Permits is available at www.mdc.mo.gov/node/10900.

Q: What are the small, biting gnats that have been such a problem in recent springs, and what can be done about them?

A: I expect that you have observed one of a number of species of small flies that are commonly called black flies or buffalo gnats. They lay their eggs in or near rapidly-flowing water, so the unusually wet spring seasons that we’ve had recently in much of Missouri have led to outbreaks, especially in our northeastern counties. As with mosquitoes, the female flies must have a blood meal in order to reproduce, and they will bite humans, pets, livestock or poultry. The flies feed outdoors during the day, so you may wish to keep pets indoors and minimize your own exposure during the day or wear light-colored clothes and long sleeves. Contact your veterinarian regarding protection of livestock. The pests are usually gone with the arrival of hotter, drier summer weather. More information is available at this link: www.ento.okstate.edu/ddd/insects/blackflies.htm.

Q: I want to go morel hunting this spring. What are the regulations regarding collecting them from public land?

A: Most public lands allow mushroom collecting for personal consumption (noncommercial purposes) and no permit is required. Collecting is allowed on conservation areas except on the grounds of several conservation nature centers and our headquarter office grounds in Jefferson City. Missouri’s state parks allow collecting and specify a limit of two gallons per person per visit. Mark Twain National Forest allows collecting with no quantity specified.



Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.

consume. This allows most of the cicadas in the brood to mate and lay eggs. When the next generation of cicadas hatches, the little ones return to the safety of subterranean burrows, where they feed on roots until they mature and stage the next mass emergence.

Missouri witnessed the emergence of a particularly large brood of 13-year cicadas in 1998, so 2011 promises to be a noisy spring in much of the state. This year's emergence is expected to cover most of Missouri. Exceptions are the Bootheel and northwest Missouri. The cicada chorus is likely to begin tuning up later this month, reach a deafening crescendo in May, and taper off in June.

Although periodical cicadas are not much bigger than the end of your pinkie finger, these musical insects can drown out a chainsaw. Male

cicadas are the singers. They use a pair of structures called tymbals to produce their song. The tymbals are located just behind the last pair of legs. They make sound the same way as a plastic soft drink bottle popping back into shape after being compressed. Tiny muscles contract and relax rapidly, crumpling the tymbals and letting them snap back into their original shape. They make a loud click each time they snap back, creating a high-pitched droning sound.

Female cicadas use a saw-like appendage to slice into pencil-sized tree twigs, where they lay their eggs. Twigs often die, and sometimes they



Cicadas will appear later this month through June and the height of their emergence will be in May.

Share Turkey Thrills with a Youth

2011 marks the 11th anniversary of Missouri's youth spring turkey season, which falls on the weekend of April 9–10 this year. The youth season is part of MDC's ongoing efforts to preserve Missouri's hunting heritage. Youth seasons for turkey, deer, quail, pheasant and waterfowl give experienced hunters the opportunity to share their love of hunting outside the regular season, freeing them to give their full attention to young apprentices. The harvest during the youth season is small, averaging about 3,300 per year since 2001, or about 6 percent of the annual turkey harvest. The rewards are big, however, as hunters pass the torch to the next generation of turkey hunters. For more information about turkey hunting in Missouri, visit www.mdc.mo.gov/node/72.



Youth spring turkey season is the weekend of April 9–10.

break and droop. This "flagging" can be quite visible in areas with large numbers of cicadas. The damage to mature trees is minor, so pesticide use is not recommended. Cheesecloth, mosquito netting or netting with mesh smaller than 3/8-inch is effective for protecting small trees.

A periodical cicada emergence creates a brief food bonanza for birds and fish. It also creates opportunities for anglers. As fish go on feeding binges, anything resembling a cicada can prompt a bite.

The 1998 emergence coincided with the emergence of a brood of 17-year cicadas. It was the two broods' first convergence since 1777 and created a memorable racket. Other single-brood appearances are expected in northern Missouri in 2014 and in west-central and southeastern Missouri in 2015.

For more information, visit <http://bit.ly/gPyCtG>, <http://bit.ly/gX2WVY> or <http://bit.ly/hDQwkd>.

Blue Catfish Update

Efforts continue to survey blue catfish populations and gather public opinion about these fisheries on Truman Reservoir and Lake of the Ozarks. The Conservation Department sampled blue catfish populations on Harry S. Truman Reservoir and Lake Ozark during the fall of 2010 and additional sampling will occur in 2011 and 2012. No regulation changes are planned for blue cats during 2011. Statewide limits (5 fish daily/10 fish in possession) still apply for blue catfish on both reservoirs with the exception of the no-boating zone below Truman Dam where the daily limit is 4 catfish in the aggregate (channel catfish, blue catfish, and flat-head catfish) of which only one can be more than

24 inches in total length. We are still interested in hearing anglers' questions or comments on these important fisheries. If you have questions about Truman, you can call 660-885-6981, ext. 253 or for Lake Ozark 573-346-2210 ext. 235. Questions or comments can also be placed online at www.mdc.mo.gov/contact-us/contact-form.

Waterfowlers Invited to Workshops

This year, the Department will consider duck season dates for the next five years. Zone boundaries for the 2011 through 2015 hunting seasons also will be set this year. First, however, we want to hear from duck hunters at the following Duck Season Dates and Zone Boundaries Workshops. We already held 11 workshops in March, but there are four more chances to attend a workshop in the beginning of April. The workshops will be held from 7 to 9 p.m. Details are available by calling the number listed for each workshop.

- **Mound City, April 4** at Squaw Creek National Wildlife Refuge headquarters, 5 miles south of Mound City, just off Interstate 29. Take exit 79 and drive 3 miles west on Hwy 159, 816-271-3100;
- **Chillicothe, April 5** at Grand River Inn, 606 West Business 36, 816-271-3100;
- **Kirksville, April 6** at the MDC Northeast Regional Office, 3500 S Baltimore, 660-785-2420;
- **Hannibal, April 7** at the Knights of Columbus Hall, 1 Columbus Road, 573-248-2530.

Year of the Forest

2011 is the International Year of the Forest. It is a reminder that keeping Missouri's 15.4 million acres of forests and woods healthy is vital to Missouri's wildlife, outdoor recreation, economy and quality of life.

Tree and forest health affects you, whether you live in the country, suburbs or cities. Covering more than one-third of the Show-Me state, our forests and woods protect our soil from erosion and filter our water. They provide oxygen we need to breathe, and they clean our air by trapping and storing pollution, including tons of carbon emissions from fossil fuels.

Trees provide shade in the summer and fuel in the winter, lumber and numerous other wood products used around our state and the world. This industry supports more than 32,000 Missouri

Did You Know?

MDC works with you and for you to conserve forests, fish and wildlife.

Listening to Missourians

- » Every year the Conservation Department strives to understand public opinions, expectations and participation in outdoor recreation. This information guides decisions about regulations and fish, forest and wildlife management.
- » **66,752** Missourians were involved in 26 different Conservation Department information gathering activities last year that included public surveys, focus groups, public meetings and contacts with our ombudsman.
- » More than **27,000** people have joined the Conservation Department on Facebook where they can post their questions and opinions about conservation in Missouri. To post your conservation questions or opinions, or to read the latest conservation news, join us on Facebook at www.facebook.com/MDCOnline.
- » As part of their community relations efforts, Department staff contact close to a million citizens each year.
- » Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning MDC. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.
- » You can also post your questions and comments online at www.mdc.mo.gov/contact-us/contact-form.

jobs and generates almost \$6 billion in economic activity annually.

Missouri's forests provide habitats for an amazing diversity of plants and animals that could not exist without them. They create a wealth of outdoor recreational opportunities and breathtaking scenic beauty. Our trees and forests help connect us to nature.

But our trees and forests face increasing threats on numerous fronts. Invasive insects, plants and diseases threaten the health of our trees and forests. Extreme weather events, such as ice storms, wind storms, droughts and floods damage trees, and human development sometimes carves up forests in ways that are not sustainable.

More than 80 percent of the Show-Me State's forests and woodlands are privately owned, so citizens play a vital role in keeping our forests healthy. If you own woodlands, please manage your forests responsibly.

Even if you don't own woodland, you can still help our trees and forests. Get out in nature and enjoy our forests. Use Missouri forest products

to help support jobs and sustainable forestry practices. Plant trees. Don't bring invasive insects, plants and diseases into Missouri.

For more information on how to manage and protect your land's forests and trees, visit www.mdc.mo.gov/node/3352.



2011 is the International Year of the Forest.



The Prairie Star Restoration Farm in Osage County, along with the Four Rivers Quail Forever Chapter and the Missouri Department of Conservation, have developed nontraditional methods of attracting and educating the public about conservation

CHRISTY LONNING



Prairie Star PARTNERS

Promoting conservation using nontraditional methods

by KYLE LAIRMORE *and* BILL WHITE

MANY OF THE GREATEST CONSERVATION SUCCESS stories in Missouri are a result of the Department's collaboration with partners. Partnerships include other agencies, nonprofit organizations and about 23,000 landowners each year. Bruce and Jan Sassmann, owners of Prairie Star Restoration Farm in Osage County, are two of our dedicated landowner partners in conservation. Bruce and Jan's goal is to use

their farm as an education center and an example for others on how to manage their property for fish, natural plant communities and wildlife. A lot of time and effort has gone into every project they've taken on, from the habitat work to the development of the education center. Prairie Star Restoration Farm is located in the middle of the Covey Junction Quail Focus Area and plays a primary role in promoting quail management.

Habitat Restoration

Prairie Star Restoration Farm is 124 acres in Osage County between Bland and Belle. Historically, the farm was used for grazing and haying and was dominated by tall fescue and timber. The management plan was developed to complete many projects that included grassland, woodland and aquatic restoration, as well as the restoration of an 85-year-old barn for educational events.

The management plan for Prairie Star Restoration Farm included converting 50 acres of tall fescue to a more wildlife-friendly native warm season grass, timber stand improvement in the woodland areas, creating covey headquarters and prescribed burning. One of the most unique projects on the farm was the aquatic restoration. Bruce said, "If we're going to intensively manage the property for bobwhite quail then why can't we manage the pond using the same ideas?" So the pond was drained and the heavy equipment was brought in. The results looked like something you would see at a motocross race. The theory was to manage for better fish habitat just as you would manage for better quail habitat by creating more usable space and edge within the pond.

Much of the timber on the farm had been invaded by dense thickets of red cedar. In addition, it had not been managed and contained a large number of small, stunted trees that were not contributing to the health of the woodland and were shading out a diversity of understory plants. Through removal of the red cedar and thinning of the remaining timber, the Sassmanns were able to restore historic open woodlands on the property and brought back some unusual plants. After a prescribed burn removed the dense mat of leaves on the woodland floor, a rare Missouri wildflower, eastern featherbells, appeared in large numbers. This was the first record of this plant in Osage County. As time goes by and more fire is applied to these restored woodlands, the Sassmanns should see a greater diversity of native grasses and wildflowers fill up the woodland understory.

Through the Sassmanns' elimination of fescue on the farm and restoration of the open woodland community, they have seen the comeback of quail on the property. During the winter of 2008, they knew of only one covey on the farm. Today



they estimate six to eight coveys use the habitat improvements on the farm. This quail response resulted within two years of the beginning of their habitat restoration activities.

An Education Center

The creation of the Prairie Star Restoration Farm was not only to develop good habitat for wildlife and aquatic species but also to promote these practices through workshops and farm tours. Both Bruce and Jan have backgrounds in education and their passion is teaching others what they know. Prairie Star Restoration Farm, along with the Four Rivers Quail Forever Chapter and the Missouri Department of Conservation, have developed nontraditional

“

Jan and I are anxious to share our story, knowledge and experiences about land restoration, whether it's a group of 300 or a chance to talk to an audience of one.”

—Bruce Sassmann



Jan and Bruce Sassmann worked with Private Land conservationist Kyle Lairmore on how to best manage their land for quail habitat improvement. An estimated six to eight coveys use the farm now, compared to only one known covey in 2009.

pictures on the farm. On Oct. 24, 2010, all the photographers were invited back to the barn to display their work during an art show open to the public. More than 300 attended.

Many landowners take part in conservation projects, but there aren't many who educate others about how to do the same. Promoting good conservation practices can be done through the traditional methods of workshops and landowner tours, but how do we reach the groups that may not think about the outdoors as many of us so-called conservationists do? The Prairie Star Restoration Farm is thinking about these nontraditional methods each day, trying to figure out how to attract more people who can call themselves conservationists. "Jan and I are anxious to share our story, knowledge and experiences about land restoration, whether it's a group of 300 or a chance to talk to an audience of one," said Bruce.

The Sassmanns' neighbors also have welcomed the chance to participate in many of the management practices that benefit wildlife. In addition to enthusiastic local residents, Jan mentioned that "partnerships have been created and a network of conservationists pitched in to share their resources and talents. Partners who assisted with our management projects included the Missouri Department of Conservation, Natural Resource Conservation Service, U.S. Fish and Wildlife Service, Quail Forever and National Wild Turkey Federation. Organizations like the Conservation Federation of Missouri and the Missouri Prairie Foundation have also guided us as we pursue our goals creating an informed neighborhood interested in creating quality habitat for wildlife."

The Sassmanns are just one of more than 23,000 reasons we put stock in our partnerships. For their efforts, Bruce and Jan Sassmann were selected as the Conservation Federation of Missouri 2009 Wildlife Conservationist of the Year and also received the 2010 Private Land Services Partners Award. ▲

methods of attracting and educating the public about conservation. Habitat workshops, landowner tours and tree planting workshops have been held at the farm, but a couple of additional events have been added to target another group of conservationists. On June 5, 2010, the first 5K Run/Walk—Trail Challenge in the Tall Grass was held to attract runners and walkers to not only compete, but leave with an appreciation of the outdoors and good conservation practices.

Prairie Star Restoration Farm, along with its partners, also hosted the first Photography Challenge, which invited local amateur photographers to the farm to create their own vision of the outdoors. The only rule for the challenge was that the photographers had to take the



ORCHIDS:

A View of Our Tropical Missouri

*Areas of rugged terrain, calcareous soils and secret
fens provide habitat for rare species.*

by GLADYS J. RICHTER

Hiking trips in Missouri lead outdoor enthusiasts to a wealth of discovery. Spring peepers and songbirds voice in a new year of adventure, box turtles take life easy as they bask in the warmth of the summer sun and wildflowers paint our woodlands, meadows and stream sides with their vibrant color. Among that myriad of wildflowers are a group of breathtaking plants some may consider out of place when it comes to the hills, hollows and rocky outcrops of the Show-Me State. Their family name sounds as tropical as mango or papaya, yet Missouri harbors more than 30 species of orchids.

Missouri's orchids belong to a large flowering family, Orchidaceae, comprised of approximately 15,000 species worldwide. Their striking flower characteristics, growth style and habitat requirements make them a unique group of plants. Spiraling and twisting as they emerge from the ground, many orchids perform a somersault dur-

ing development, with their flowers eventually hanging nearly upside down to create a look all their own.

Hidden Jewels

Depending upon the species, observing orchids in Missouri is often by chance, as many do not make flowering appearances each year. Populations thought to have vanished may reappear several years later, while other groups bloom consecutively for years. Without their showy blossoms and with only a few leaves above ground, most of our larger orchids go unnoticed. Due to either their earthy tones or their association with larger plants, small-flowered species, such as the crane fly orchid, *Tipularia discolor*, green adder's mouth, *Malaxis unifolia*, and Adam-and-Eve orchid, *Aplectrum hyemale*, are hard to spot even when sporting their full floral arrangements.

Many of Missouri's orchids bear feminine names, notably the ladies' slippers and ladies' tresses. Had Cinderella been handed a floral slipper to try on instead of a glass one, she may have been exalted to a higher level than princess, for the slipper orchid genus, *Cypripedium*, refers to the lovely footwear of the Greek Goddess Aphrodite.

Small white lady's slipper

Cypripedium candidum



Crane fly
Tupilaria discolor



Green adder's mouth
Malaxis unifolia



Yellow lady's slipper
Cypripedium calceolus

Lady's Slipper

Nestled within the rich humus soils of Missouri's woodlands, valleys and fens are three species of lady's slipper orchids that showcase their dainty, ballerina-style blossoms from April into early June. With their striking colors, each species is easily distinguished from the others. The stem of the showy lady's slipper, *Cypripedium reginae*, may grow more than 3 feet tall and have between six to 10 large oval leaves. The large, inflated flowers are white to slightly off-white with a purple or purplish-pink blush. Yellow lady's slipper, *Cypripedium calceolus*, also displays an inflated lip along with three yellowish-brown sepals. The two lateral sepals spiral like locks of curly hair on each side, while the broad-shaped top sepal arches over the bright, canary-colored lip. Although found bordering streams and ravines in both northern and southern Missouri, this species appears to be more abundant in the Ozark region of our state. A smaller variety of the yellow lady's slipper is found more commonly in western Missouri and has more richly colored brown, lateral, twisted sepals. Princess-like

with their porcelain sheen, small white lady's slipper orchids, *Cypripedium candidum*, are seldom encountered throughout the state and are under serious threat due to over-collection and disturbance of key habitat sites.

Grass Pinks

Many orchids depend upon insects for pollination, and their unique flower structures help to ensure pollination success. In the case of the two Missouri species of grass pink orchids, bees play a vital role. Perceiving the flower's bearded column as anthers, a bee lands to collect pollen and causes the flower's lip to tip downward. The bee struggles to free itself, and the orchid is successfully pollinated.

Grass pink orchids occur in habitats south of the Missouri River. *Calopogon oklahomensis*, prairie grass pink, is found primarily on upland prairies in southwestern Missouri. Visitors to Diamond Grove Prairie Conservation Area in Jasper County in May sometimes encounter this beautiful fuchsia-colored plant. Though it doesn't bloom every year, it is worth looking for.



Lily twayblade
Liparis liliifolia

Prairie grass pink
Calopogon oklahomensis

Western prairie fringed
Platanthera praeclara

Swamp grass pink, *Calopogon tuberosus*, is restricted to wet meadows and Ozark fens of the southeastern part of the state. With a showier appearance than prairie grass pink, its pink blossoms may be rose-pink, white or brilliant magenta.

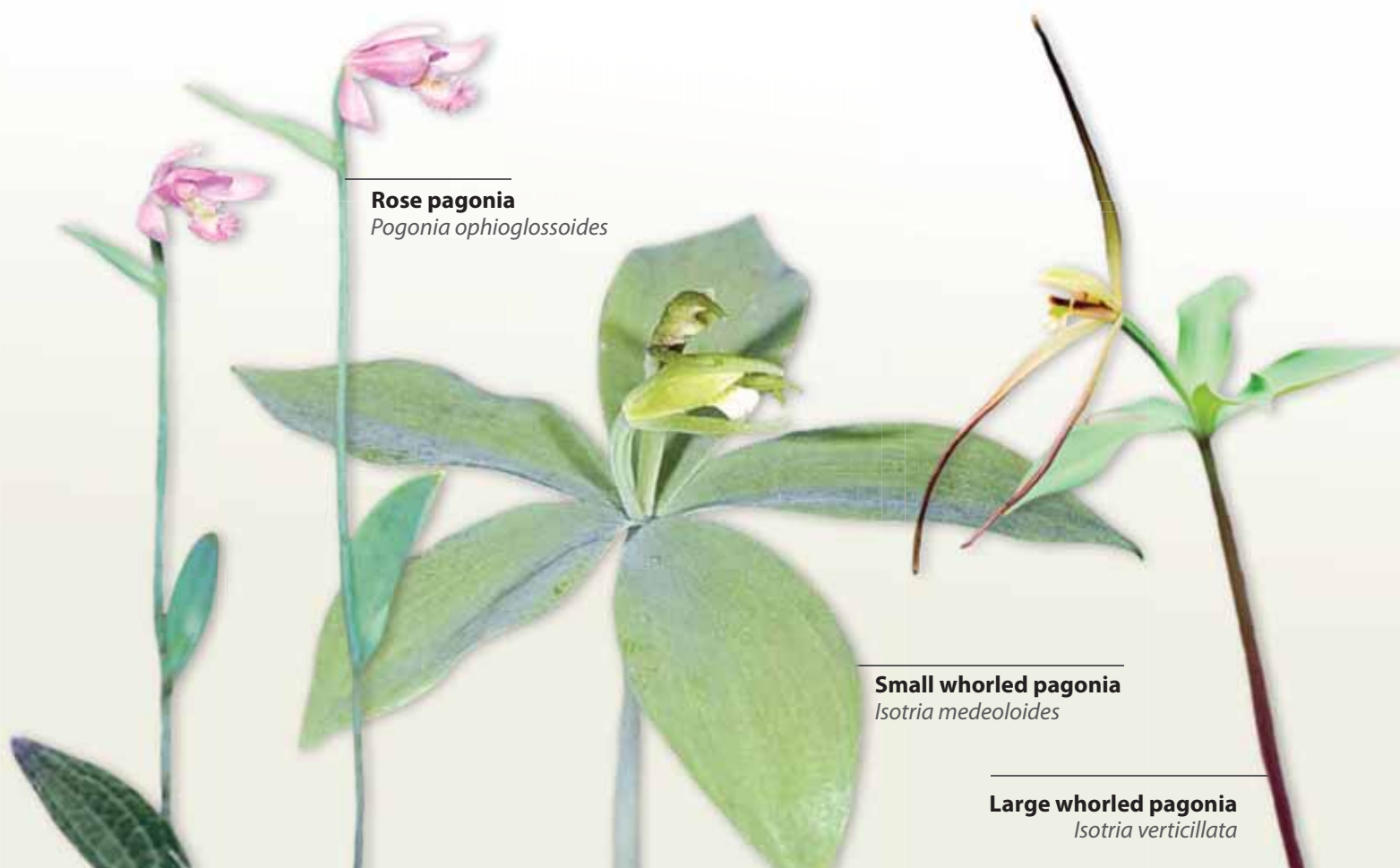
Twayblades

Twayblade orchids enjoy our Ozark fens and damp woodlands during the cooler spring months of May and June. First discovered in Shannon County by botanist Julian Steyermark, Loesel's twayblade, *Liparis loeselii*, is currently a Missouri species of concern. Its Missouri range is limited to just a few southeastern and central Ozark counties, notably Butler, Carter, Madison, Wayne, Shannon and Laclede. Its cousin, the lily twayblade, *Liparis liliifolia*, is more common and may be observed in wet meadows and moist rocky woodlands in both the Ozarks region and northern portion of the state. A third twayblade species, *Listera australis*, southern twayblade orchid, was discovered growing in Missouri in April 2009 by members of the Missouri Native Plant Society.

Fringed

Upon our native prairies, alongside sinkhole ponds and within select mesic forests, grow a regal group of North American plants, the rein orchis, or fringed orchids. Fringed orchids found in the United States are members of the genus *Platanthera* and have more than 500 tropical relatives worldwide. Eight species are known to have occurred historically in Missouri and most are in a perilous state, mainly due to habitat changes.

With local names such as soldier's plume, frogspike, ragged orchid, prairie fringed orchid and pride-of-the-peak, it is clear that this assemblage of orchids is not your average daisy or run-of-the-mill rose. And while each species is unique, they share a few common characteristics. Arising from tuberous roots, the smooth stem usually supports two to eight leaves and is topped with a spike covered with several fragrant and sometimes brightly colored individual flowers. The lower lip may be entire or fringed and has a long spur-like appendage that extends downward. For all of these orchids, summer is their time



Rose pogonia
Pogonia ophioglossoides

Small whorled pogonia
Isotria medeoloides

Large whorled pogonia
Isotria verticillata

to shine, with June, July, August and September being the best months to look for them in their preferred habitats.

Two of our native species, *Platanthera praeclara*, the western prairie fringed orchid, and *Platanthera leucophaea*, the eastern prairie fringed orchid, are currently listed as threatened under the U.S. Endangered Species Act. Due to invasive vegetation and land development activities these species have been pushed out of their native range, and sightings in Missouri are extremely rare. Interestingly, both western and eastern prairie fringed orchids are pollinated at night by sphinx moths, and thus depend upon these nocturnal insects for their survival.

Pogonia

Rarely encountered, Missouri's pogonia orchids enjoy the seclusion of rich Ozark woodlands, fens and stream valleys. Remaining underground for several years without flowering, large and small whorled pogonias, *Isotria verticillata*, and *Isotria medeoloides*, have yellowish-green

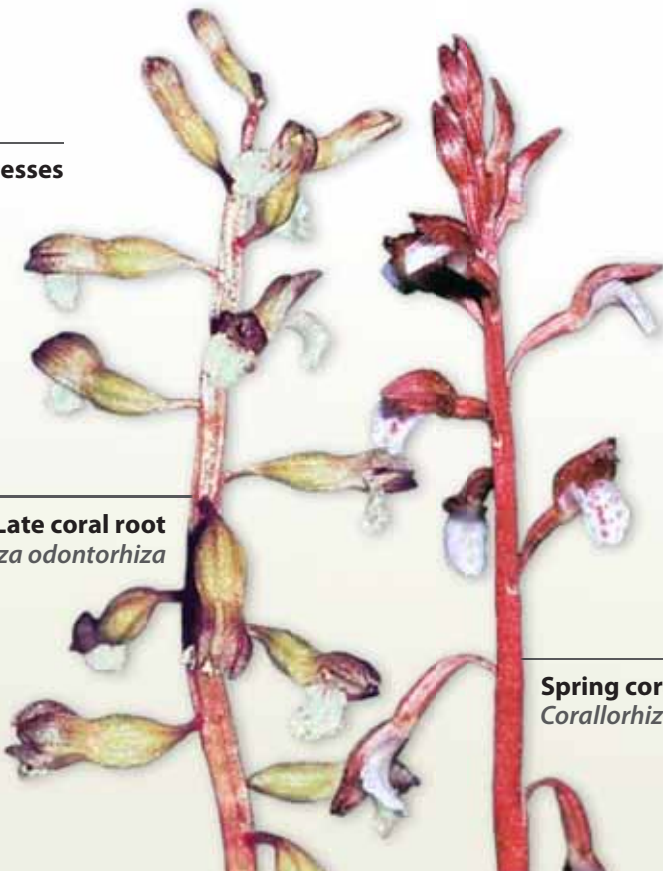
flowers and are observed far less frequently than the fragile white nodding pogonia, *Triphora trianthophora*. In fact, the small whorled pogonia is so rare that it has been documented only once in Missouri during the late 1800s from a single location in Bollinger County. The rose pogonia, *Pogonia ophioglossoides*, has only been viewed in Shannon and Reynolds counties.

Spiranthes

As summer gives way to autumn, many wildflowers fade and wither, but for a complex group of small orchids, the late summer into fall transition is a time to shine. Six out of the seven species of *Spiranthes*, also known as ladies' tresses or pearl twist orchids, find their seasonal niche amongst the towering yellow blades of prairie and glade grasses and browning coneflower seedheads, as well as within low-lying wet meadow swales and Ozark fens. Although their preferred habitats may be readily distinguishable, the flowers themselves are hard to identify without use of a hand lens and your nose.



Yellow-lipped ladies' tresses
Spiranthes lucida



Late coral root
Corallorhiza odontorhiza

Spring coral root
Corallorhiza wisteriana

While August through early November signals the peak blooming period for nearly all Missouri *Spiranthes*, yellow-lipped ladies' tresses orchid, *Spiranthes lucida*, may be found around bluffs and wet fields within the Ozarks during spring. Like other pearl twist species, this small flower showcases a spike of small, white, tubular-shaped flowers. When one of its individual flowers is viewed up close, however, a bright yellowish-orange spot can be seen on its square-shaped lip.

The autumn-blooming ladies' tresses require a more scientific approach for identification, based primarily upon leaf shape, distinctive odor, or lack thereof, and the twist of their floral structure. All seven species appear to be found more within counties south of the Missouri River.

Coral Roots

Arriving with autumn's chilly temperatures and falling leaves are late coral roots, *Corallorhiza odontorhiza*, which, along with their spring-blooming relative spring coral root, *Corallorhiza wisteriana*, may be found in both

southern and northern Missouri. Coral root orchids are colonial in nature and frequently consist of 10 or more plants per colony. Both early and late coral roots, as well as the crested coral root, *Hexalectris spicata*, are saprophytic and lack chlorophyll. Therefore, they rely entirely upon mycorrhizal fungi for all of their nutrients.

Worldwide many orchids are threatened, and Missouri species are no exception. The Missouri Species and Communities of Conservation Concern checklist lists nearly half of the state's species as critically imperiled or, in some cases, extirpated.

Habitat disturbance, invasive vegetation competition and illegal digging and over-collection place many plant populations in jeopardy. Orchids collected in the wild have a poor chance of survival. Protection of habitat and leaving existing populations intact provide the best overall chance of these unique plants remaining a part of our native flora and for future generations to view the tropical side of Missouri. ▲



HUNTING HUSH-MOUTHED GOBBLERS

These strategies
will help you tag a
tom on days they
don't gobble.

by MARK GOODWIN



IT'S OPENING WEEKEND OF SPRING TURKEY SEASON. Anticipation runs high as you quietly walk through the woods along an old farm road in the dark of predawn. Every day this week you scouted this 100-acre farm and heard no less than three toms gobble each morning. One day you heard six different toms. Another, you left the woods with two toms gobbling and drumming less than 50 yards away, just over the crest of a hill. Today you've got all morning to hunt, and weather conditions are perfect for toms to gobble: clear sky, warm and no wind. Moreover, not once during the week did you spook birds. They haven't been pressured.

You ease into the pasture field, where twice this week you saw toms strutting, and set out a pair of decoys. Then you settle in at wood's edge with your back against a big black oak. As the east sky brightens, a barred owl calls. You tense with excitement and wait for a tom to answer. None does.

It's now light enough for toms to gobble on their own, but the only birds calling are songbirds. A crow flies over and lets loose a raucous caw; no toms answer. For more than an hour you sit, calling now and again—but nothing. It's like the toms have vanished. What's happened? Sometimes, even under ideal conditions, toms just don't gobble.

Some hunters call it quits when toms refuse to sound off. Yet on quiet days, chances are excellent that toms you heard gobble just days before are still within hearing distance of your calls. What's the most effective way to hunt toms on days they don't gobble? Here are some tips.

Sitting Strategy

Small farms of 100 acres or so that offer a mix of pasture fields, row crops and small woods plots can offer phenomenal turkey hunting. They are, however, delicate resources. The open terrain makes it easy for turkeys to spot you and spook if you are up and moving. That's the last thing you want to do if your only turkey-hunting spot is a small farm. Here's why.

Compare the response of wild turkeys to humans and other predators. If wild turkeys see a human 200 yards away, they typically run or fly off—major spooked. If they see a bobcat or a coyote, even 50 yards away, often all turkeys do is stand alert and watch. If a coyote in hiding makes a rush at a flock of turkeys next to a woods lot, turkeys may just fly up in the trees, maybe no more

than 20 yards from the coyote. That's not the response if a human steps out. Though a wild turkey's brain is no bigger than a walnut, they know the difference between humans and other predators. Wild turkeys perceive humans as predator supreme, and they do all in their power to avoid us.

If you spook turkeys several times—or maybe just once—they will change their routines.

Telemetry studies in Missouri show that the home territory of wild turkeys varies by season and ranges from about 240 to 2,000 acres. This means that if you are hunting on a small farm and you disrupt the pattern of the turkeys using it, at best they will change their pattern and become a little more wary but still be on the farm. At worst, they will move a ridge over—off the farm—leaving you out of luck.

On small farms, when toms are not gobbling, the way to hunt them is to pick a spot turkeys have been using, set up carefully, then wait them out. Sit for hours—from before first light until the end of shooting hours if necessary. This minimizes your chances of spooking birds and maximizes your chances of tagging a tom. Few turkey hunters, however, practice this approach. They equate long sits with boredom and an aching back and rear end. Yet long sits don't have to be boring or uncomfortable if approached the right way.

On long sits for turkeys, problems with comfort are easy to handle. Use insect repellent so mosquitoes and ticks aren't a problem. Bring cushions to sit on and place between your back and the tree you sit against. Many turkey-hunting vests offer built-in cushions. Pick a spot to sit

Safety

- » When on the move in the turkey woods, always wear at least a hunter-orange hat. A hunter walking through the woods sounds much like a turkey walking. Protect yourself.
- » When using a camouflage blind, other hunters cannot see you even if you are wearing hunter orange. To be safe, tie hunter orange on each side of the blind so it can be seen from all sides.
- » Colors that should never be worn in the woods while turkey hunting are red, white, blue and black. Hunters may associate these colors with the gobbler.
- » To be safe, wrap the bird in hunter orange before carrying it out.

that offers comfort: flat terrain that has you at a comfortable angle. Also, choose a spot that has you in the shadows and offers enough vegetation to break up your outline but also offers you clear shooting lanes. You can use clippers to clear shooting lanes or to trim leafy limbs to stick them in the ground around you. Setting up in the shadows with a proper screen of brush allows you to move a little and stay comfortable. When a tom walks into view, that's the time to remain motionless.

Boredom is more difficult than physical comfort. It requires an attitude change. To keep a positive mind-set, scout carefully and set up in an area that you know toms are using. Remember that the longer you sit, the longer you give a tom the chance to respond to your calls. Bring food, drink (nonalcoholic, of course) and something to read. Doze. Just stay put. It is only a matter of time before a tom approaches.

Maybe a tom doesn't show the first time you use this technique. Maybe he doesn't show the second time. But if you stick with it, this approach will result in you wrapping a tag on a turkey. The success will convince you how

effective long sits can be on days when toms don't gobble. You'll gain confidence in the approach and a sense of pride in your patience. It will also make you wonder how many chances at toms you've missed in the past by walking and calling.

Walk-and-Call or Modified Call-and-Wait

If your hunting area is large, consisting of close to 1,000 acres or more, you have options for hunting turkeys on days they don't gobble. Say you have permission to hunt five farms in close proximity, all between 200 and 300 acres, and all a mix of small woods lots, pasture and row crops. Though long sits will work on these farms when toms don't gobble, walking and calling in an attempt to make a turkey gobble may be the way to go. If you spook toms on one farm, you've got other farms to hunt; moreover, if toms aren't gobbling on one farm, maybe they are on another. Walking and calling also works well if you have not scouted and are not sure how turkeys are using the farms.

To make a turkey gobble, aggressive "yelps" and "cutting" often work best. Box calls work well because of the volume they generate. Before you call, look around and decide where you could set up quickly if a tom answers. Sometimes, particularly late morning, if a tom gobbles at your calls, they come in quickly—sometimes at a run.

Use terrain features, such as hills, creeks and ditches, to limit the chance of turkeys spotting you, while at the same time maximizing your ability to see turkeys. Peek over creek beds. When you get to the edge of a wooded area, stay in the shadows and step behind a tree and peer into fields before you step out. Use binoculars and spend time glassing fields. Sometimes a tom may be just out of sight in a dip in the field. Even when you are on the move, patience is still part of turkey hunting. Your goal, if you can't get turkeys to gobble, is to see them before they see you—a tough proposition.

Once you spot a tom in an open field, set up and call. If the tom pays no attention, watch his movements. He may head in a direction that allows you to move ahead of him and set up to ambush. Though this isn't calling turkeys, it takes skill to move into position to intercept a tom that is not gobbling or responding to calls.

If the area you are hunting is expansive timber, hundreds or thousands of acres of woods (as found in the Mark Twain National Forest in the Missouri Ozarks), a mix of walk-and-call and sit-and-wait works best. Big timber in the Missouri Ozarks consists of ridges separated by draws or hollows of various sizes. An effective way to hunt this terrain when toms aren't gobbling is to walk logging roads and stop at the top of ridges that lead

Buy Your Turkey Hunting Permit at Home

As of March 1, you can buy all sport hunting and fishing permits at home online, 24/7, using the new e-Permits system. The system allows you to print permits on your printer and use them immediately. You will not need a color printer to print permits. You can still buy permits from vendors, if you prefer. You also can buy permits by calling toll-free 1-800-392-4115.

Turkey tagging procedures have changed with the change to e-Permits. The main difference is that permits no longer include a removable transportation tag. Instead, the permit itself is the transportation tag. Turkey permits have months printed along one edge and dates on another edge. Hunters will notch the month and day as part of recording their harvested game and attach the permit to the animal. They will continue to check harvested animals through the Telecheck system.

E-Permits are not printed on adhesive-backed material, so hunters will need to provide a means of attaching them to harvested game. Hunters are encouraged to put e-Permits inside zipper-type sandwich bags and attach them to turkeys with string, twist-ties, wire, plastic cable ties or tape. Protecting paper permits in this way will keep them readable and make it easier to write confirmation numbers on them when Telechecking turkeys. You also can print extra copies of permits in case one gets lost or ruined. As always, permits may not be shared and additional copies of a permit DO NOT provide additional valid permits for the buyer or others to use.

The change to e-Permits is part of MDC's continuing effort to improve services and keep permit costs low in spite of declining revenues. More information about e-Permits is available at www.mdc.mo.gov/node/10900.

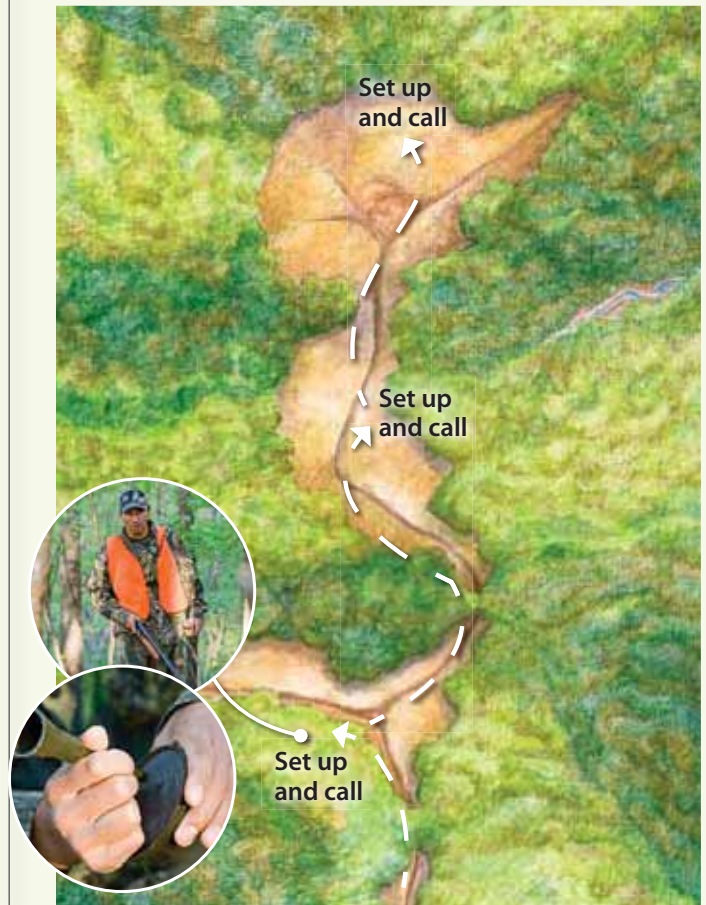
Scenario 1—Hunting Farms in Close Proximity

If you have permission to hunt farms in close proximity, walking and calling in an attempt to make turkeys gobble may be the way to go. This approach also works well if you haven't scouted and are not sure how turkeys are using the farms.



Scenario 2—Hunting in Expansive Timber

If the area you are hunting is more expansive, a mix of walk-and-call and sit-and-wait works best. Set up and call, and if nothing answers, sit for 45 minutes to an hour, calling every 10 or 15 minutes. If no tom approaches, move over to the next ridge and draw and repeat the process.



ILLUSTRATIONS BY LES FORTENBERRY

to a draw. Here you set up and call. If nothing answers, sit for 45 minutes to an hour, call every 10 or 15 minutes, and listen carefully for a tom to approach. If the leaves are dry, and there's little to no breeze, you can often hear a tom's footsteps in the leaves more than 50 yards away. If no tom approaches, move over to the next ridge and draw and repeat the process. In a morning, using this system, you can cover more than a square mile of woods depending on the size of the draws you are calling into.

Do the turkey hunting tips in this article sound like work? They do—and they are. But when, after you've sat for five hours, a tom materializes in your decoy spread in full strut, or when, after your fifth set-up in the big timber, a tom sticks his head up over the lip of a ridge 25 yards out, you'll find the effort all worthwhile. ▲

2011 Turkey Season Outlook

Although Missouri's wild turkey population remains strong, the effects of poor reproduction in recent years due to several factors, including persistently bad spring weather, have reduced turkey numbers. As a result, this year's spring season may be more challenging for hunters than in past years when production was higher and there were more birds on the landscape. Despite lower turkey numbers, Missouri is still widely recognized as offering some of the nation's best turkey hunting. Each year, Missouri's turkey harvest is among the highest of any state in the country. Although this year's harvest is not likely to be as high as those of the early 2000s, hunters can expect some great hunting during the spring season.

This year's spring turkey season is April 18 through May 8, and the youth season is April 9 through 10. To learn more about spring turkey hunting in Missouri, visit www.mdc.mo.gov/node/132.

TAG! You're it!

*Angler reports improve fishing and
support conservation research.*

by TRAVIS MOORE *and* ROSS DAMES





MDC fisheries biologists conduct a lake sturgeon survey on the Mississippi River near Hannibal.

MOPPAOL PLOTHONG

As kids, we enjoyed chasing friends in a game of tag. Now that we are a little older, and work as fisheries biologists, we are involved in a different version of tag. No, we aren't chasing each other around one of the conservation areas. Rather, we're tagging a variety of fish species to learn about the critters that swim in our big rivers, lakes and streams. And you, as anglers of Missouri, can help us.

Marks and Tags

There are a variety of ways that fisheries biologists can identify individual or groups of fish. In some cases, the easiest thing to do is to mark the fish. For instance, the Missouri Department of Conservation began stocking fingerling lake sturgeon into our big rivers in the 1980s. The first two batches of fish were marked by clipping off one of their pelvic fins. This permanent mark affects the fish for only a short time, but allows biologists to identify those fish for the rest of their lives. Several of the fish have been recaptured in the Missouri, Mississippi and Illinois rivers.

Occasionally, biologists will cut off a small piece of a fish's fin to mark it temporarily. This short-term mark helps us estimate the number of fish in a population and has very little impact on the fish. Often, the piece of fin grows back.

The more common method of marking fish today is to use a variety of tags. Some of them are very simple, while others incorporate modern technology. A simple tag commonly used is called a coded wire tag, or CWT. This tag is a 2- to 3-millimeter-long piece of wire that is embedded somewhere in the fish's flesh or fins. The only way to detect it is to use a very sensitive metal detector. Because biologists can't see the tag, the tag's location on the fish is the key to telling us which batch of fish it belongs with. This type of tag is frequently used to mark an entire batch of fish stocked in a given year.

A more advanced type of tag is the passive integrated transponder tag, or PIT tag. PIT tags used in Missouri are rarely more than 5 or 6 millimeters long. Each tag has a unique series of letters and numbers that help us identify each individual fish. A special reader sends a signal to the PIT tag. The signal charges the tag, which sends the unique code back to the reader, allowing biologists to identify the individual fish.

The most advanced type of tag in use is a radio or sonic transmitter. Transmitters vary in size, depending on the size of fish they will be used with and the length of time biologists need the tag to transmit the signal. In most cases, the transmitter is surgically implanted into the fish's body cavity. Each transmitter emits a signal that allows biologists to find and follow an individual fish to determine movement, habitat use and behavior.



NOPPADOL PAOTHONG

When a special reader sends a signal to the passive integrated transponder (PIT) tag, the tag sends back a unique code that allows biologists to identify the fish.



Biologists sometimes will track tagged fish with radio transmitters.

Many fisheries projects incorporate the use of visible tags. In these studies, biologists rely on anglers to provide information about the tagged fish when they catch them.

The most commonly used visible tag is the T-bar, or spaghetti tag. This tag is similar to tags used to mark clothing in many stores. A special tagging gun is used to attach the tag near the fish's dorsal fin. The "T" part of the tag serves as an anchor to hold the tag in place. The visible part of the tag can be a variety of colors and includes a unique number that identifies the fish and contact information for reporting the tag.

Another commonly used visible tag is the dangler tag. Dangler tags are the size of a large medicine capsule and are attached near the fish's dorsal fin by a pair of thin wires. This type of tag also includes an individual fish number and contact information.

What Do We Learn?

When anglers report catching tagged fish, biologists gain information about those individual fish and the information can be applied to the



To help estimate the number of fish in a population, biologists will sometimes cut a small piece of the fish's fin to mark it.

rest of the population. We learn how fast fish grow, how far they move and how long they live after tagging. Visible tags returned by anglers help us estimate the number of fish that are caught and harvested, allowing us to better manage these populations.

When you report catching tagged fish, we also learn a little about you! We learn what species of fish you like to fish for, where you like to fish and what size of fish you like to keep. The information you report helps us better manage the fish population for the species and size of fish you like to catch.

While we are never surprised to hear that a tagged river or stream fish is no longer in Missouri, we are frequently surprised by how



This smallmouth bass has a commonly used dangler tag. The tag is attached by a pair of thin wires. This type of tag also includes an individual fish number and contact information.

WANTED

• FISH TAGS •

More than 570,000 people fish in Missouri for bass, catfish, panfish, walleye and so much more. They fish in the numerous small lakes and prairie streams of north Missouri, the large reservoirs and thousands of miles of Ozark streams, and the big rivers that border and dissect our state. Sometimes, these anglers are lucky enough to find a tagged fish. Not all tags come with rewards, but each one gives anglers a chance to take an active role in fisheries management, improving our fishing resources for everyone.

If you catch a tagged fish:

- » Call or write to the contact on the tag. (You may need a magnifying glass.)
- » Include information on where and when you caught the fish, the fish's length, whether or not you kept the fish and your mailing address.
- » In order to claim a reward, we **MUST** have the tag. If the tag does not say "reward" it likely does not include one. In those cases, if releasing the fish, leave the tag attached but write down the number and the contact information. This allows us to track it in the future.

If you can't read the information on the tag, contact your local Missouri Department of Conservation office. We may be able to identify who used the tag and a reward may still be available.

far some fish go and where they are later caught. During a recent paddlefish study, a fish was tagged at the mouth of the Osage River near Jefferson City. Nearly two years later, that fish was recaptured in a floodplain lake in Arkansas. The fish had traveled more than 700 miles down the Missouri and Mississippi rivers! We would have never known that if the fish hadn't been tagged, and subsequently reported.

What to Do if You Catch a Tagged Fish

The most important thing that you, as an angler, can do to help us is to report the tag in a timely manner. The information that you provide will be used to help us better manage both local and statewide fisheries. If too many people fail to report tags, we may come to the wrong conclusions on the best way to manage these fisheries.

Another reason to report tagged fish is that some tags include a reward. Tag rewards vary by project and may expire over time. So don't delay, report today! While it would be great if no one needed a reward for reporting a tagged fish, history has proven that rewards increase tag reporting. Even now, you may be thinking about a tag or two that may be lying in your tackle box. It's time to dig it out and send it in. Even old information can be useful.

To report a tagged fish, look for a phone number or address on the tag. The print may be small, so a magnifying glass may be needed. Write down any information you see on the tag.



NOPPADOL PAOTHONG

There are a lot of biologists, both within and outside of Missouri, who are tagging fish. The information on the tag will help us identify who tagged the fish.

Call or write to the contact on the tag. In order to claim a reward, we **MUST** have the tag. In many cases, once we have processed the tag, we can send it back to you with information about that particular fish. If the tag does not say “reward” it likely does not include one. However, it is still useful to have the information. In those cases, leave the tag attached to the fish but write down the number and the contact information, then report the tag as soon as you can. By leaving the tag on the fish when you catch-and-release it, you make it possible for us to gain additional information from it in the future.

When you submit a tag for a reward, include your mailing address, when and where you caught the fish, the length and whether or not you kept the fish. It is okay if you don’t remember all of the details. Provide as much information as you can.

If you can’t read the information on the tag, contact your local Missouri Department of Conservation office. Based on the information you provide, we may be able to identify who used the tag and a reward may still be available.

While not everyone will catch a tagged fish, many of you will. It is a special experience when you get to learn how you have contributed to the study of fish populations in Missouri.

And with that, there is just one more thing to say ... Tag! You’re it! We’ll see you on the water! ▲

MDC fisheries biologists scan for a coded wire tag (CWT) using a sensitive metal detector. This type of tag is frequently used to mark an entire batch of fish being stocked in a given year.

Eastern Towhee

This beautiful year-round resident songbird invites you to “drink your teeeeee” in Missouri’s outdoors.

DO YOU HAVE a favorite songbird? Almost everybody has one, birders and non-birders alike. Bluebirds and cardinals are probably frontrunners in this category, at least in Missouri, but I am especially fond of a fairly secretive bird that often escapes the notice of casual bird watchers—the eastern towhee. A member of the sparrow family, eastern towhees (*Pipilo erythrophthalmus*) are similar in size to a robin and striking in appearance. The male is covered in sooty black plumage except for its rusty-colored flanks, white wing corners and white belly. Females are covered with a warm brown where the males are black. If you catch the eastern towhee in the right light you will find its eye to be a deep red.

Eastern towhees are typically found in brushy areas as exemplified by the photograph. My favorite place to photograph towhees is Shaw Nature Reserve in Franklin County. I always head to areas with thick undergrowth where I’m almost sure to find towhees fluttering between grapevine thickets and shrubs, making their “chewink” call. It is always a challenge to capture a clean image of a towhee as I search for a moment when an individual hops into a clear field of view through the tangled habitat. Sometimes if I’m lucky I am treated to the male’s song, “*Drink your teeeeee*,” a quintessential avian melody, familiar to most bird watchers.

Eastern towhees are ground foragers and their diet includes seeds, fruits, insects, spiders and even snails. Although towhees are a bit shy, they occasionally visit backyard feeders, typically foraging on the ground beneath the actual feeding structures. They are fun to watch because they prefer to scratch the ground with both feet at the same time, hopping backwards in an awkward dance movement. Several years ago my wife and I moved into a home in a dense patch of tall cedars and soon learned that we were coexisting with a population of towhees. I found them to be somewhat crepuscular, similar to deer, as they only came to our feeding station at the fringes of the day, barely visible in the dim light. During our first spring the cedars became filled with a chorus of towhees, but I could never locate an individual bird. Finally one morning I spotted a male singing his heart out at the very top of one of the cedar trees. On further investigation, I found a couple more of the crooners, each perched at the top of its favorite tree.

Eastern towhees are listed as year-round residents throughout Missouri and are considered “fairly common.” They typically nest in the same type of undergrowth where they can be found foraging. After the eggs hatch, both parents care for the young until they leave the nest and learn to fend for themselves. As they mature, males establish their own territory where they will eventually fly up to a favorite perch and proclaim to the world, “*Drink your teeeeee!*”

—story and photo by Danny Brown

If you’re one of the more than 51 million Americans who love to watch birds, *Feeding Backyard Birds* is the free publication for you. It features details on when, where and how to feed the birds, it also gives tips on providing year-round native habitat. It includes color illustrations of 34 birds common to Missouri. To request this item, write to MDC, Feeding Backyard Birds, PO Box 180, Jefferson City, MO 65102-0180 or e-mail pubstaff@mdc.mo.gov.





Granny's Acres CA

This forested area near Truman Reservoir offers good hunting, hiking and nature viewing.



IF YOU'RE PLANNING to hunt turkey or view spring-flowering trees around Truman Reservoir in Benton County this month, give Granny's Acres CA a try. This 351-acre area offers good squirrel, turkey and deer hunting in season, and its hardwood forest will be graced with dogwood, redbud and woolly buckthorn blossoms.

This formerly inaccessible area had a history of frequent wildfires before the Department acquired it in the 1960s. Those fires destroyed the area's timber potential but created a diverse plant community, including trees with cavities that provide habitat for birds and small wildlife. Today, managers are using prescribed fire and other techniques to restore the area's dolomite glades (a rocky, desert-like type of habitat), maintain the limestone oak/hickory woodland plant community and restore the riparian forest along Whig Creek. These management practices maintain the area's diverse wildlife habitat and support good populations of turkey, deer and squirrel.

In 2008, the Department acquired an additional 31-acre tract, and it added a small, three-car parking lot in 2009. Thanks to these improvements, visitors can now park at the area and hike in for hunting and nature viewing. Spring turkey hunting is always challenging and can be very rewarding at Granny's Acres—if you're willing to hike.

Nearly four miles of mapped, signed hiking trails allow you to range widely over the area's diverse topography. The trails are not for the faint of heart, however. Granny's Acres is a very rocky area with steep hills with some long climbs along glades and old-growth woodlands.

Birders will appreciate seeing and hearing such species as summer tanager, blue-gray gnatcatcher, field sparrow, eastern towhee, red-eyed vireo, white-eyed vireo, eastern bluebird, yellow-bellied cuckoo, yellow-breasted chat, red-shouldered hawk and broad-winged hawk. Other fun-to-watch wildlife includes scorpions, box turtles, five-lined skinks and fence lizards. Come back later in the spring and summer to see lead plant, goat's rue, blazing star, purple coneflower, Missouri coneflower, rose verbena, asters and purple milkweed.

The area is open to statewide regulations for deer and turkey hunting. As always, visit the area's Web page (listed below) for a look at the regulations and to download the map and brochure.

—Bonnie Chasteen, photo by Cliff White

Recreation opportunities: Bird watching, hunting and hiking

Unique features: Forests, glades, savannas, woodlands and grasslands

For More Information

Call 660-530-5500 or visit www.mdc.mo.gov/a6520.





Contributors

ROSS DAMES grew up near the Mississippi River in northeast Missouri, the same area he has served as a fisheries management biologist since 1996. He has conducted numerous fish tagging and marking studies in both Missouri and Florida. He enjoys fishing Missouri's streams and lakes and is an avid turkey hunter.



MARK GOODWIN is a lifelong Missouri resident and a frequent contributor to the *Conservationist*. He has enjoyed hunting wild turkeys for more than 30 years and still holds as much enthusiasm for the pursuit as he did when he tagged his first tom. He will guide two young hunters for this year's Youth Hunt, April 9-10.

KYLE LAIRMORE is the private land conservationist for Gasconade and Maries counties. His passion is providing youth with the opportunity to experience the outdoors, give them lifelong memories, education and the tools needed to adopt a lifestyle that includes hunting, fishing, shooting and love for the outdoors.

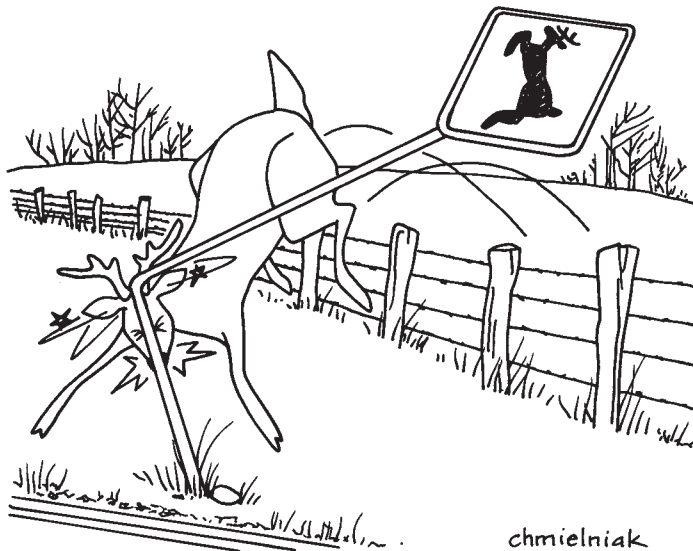


TRAVIS MOORE is a fisheries management biologist in Hannibal, working primarily on the Mississippi River. He and his family spend most of their free time hunting, fishing, kayaking and donating time to help regional National Wild Turkey Federation chapters.

GLADYS J. RICHTER is an interpretive freelance writer who lives near Richland with her family. She enjoys a variety of outdoor activities, including fishing, hunting, hiking and gardening with native plants. Prior to becoming a freelance writer, she worked in the Department's Outreach & Education Division in Joplin.



BILL WHITE is the Ozark unit chief of the Private Land Services Division for the Department of Conservation in Jefferson City. He supervises Private Land staff in southern Missouri. His interests include quail hunting, camping and keeping up with four sons, three grandkids and a dog.



Hunting and Fishing Calendar

FISHING	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/28/11	2/29/12
impoundments and other streams year-round		
Bullfrogs and Green Frogs	Sunset 6/30/11	Midnight 10/31/11
Nongame Fish Giggling	9/15/11	1/31/12
Nongame Fish Snagging	3/15/11	5/15/11
Paddlefish	3/15/11	4/30/11
Paddlefish on the Miss. River	3/15/11	5/15/11
Trout Parks	3/01/11	10/31/11
HUNTING	OPEN	CLOSE
Deer		
Firearms: November	11/12/11	TBA
Groundhog	5/09/11	12/15/11
Pheasant		
North Zone	11/1/11	1/15/12
Southeast Zone	12/01/11	12/12/11
Quail	11/1/11	1/15/12
Rabbits	10/1/11	2/15/12
Squirrels	5/28/11	2/15/12
Turkey		
Youth	4/9/11	4/10/11
Spring	4/18/11	5/8/11
Fall	10/01/11	10/31/11
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see www.MissouriConservation.org/7573	
TRAPPING	OPEN	CLOSE
Furbearers	11/15/11	1/31/12
Otters & Muskrats	11/15/11	2/20/12

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit www.MissouriConservation.org/8707 or permit vendors.

WHAT IS IT?

Zebra swallowtail

On the back cover and right is a zebra swallowtail by Noppadol Paothong. It is a woodland species. It is attracted to many flowers and sometimes gathers in groups at mud puddles and in creek beds. There are several broods in a year; spring specimens are smaller, with shorter tails, than those emerging later. The flight period extends from late March to October. Swallowtails seek out pawpaw trees to lay their eggs, and then the caterpillars feed on the pawpaw's leaves.



AGENT NOTES

E-permits saves Missourians time, fuel and money.

AS WE BEGIN a new permit year we also begin a new permit type. Those of you headed out to hunt turkeys this season will have a new option for purchasing permits. E-Permits are permits you purchase and print from home. You simply go to MDC's secure website and purchase the permits you need. We encourage you to save the purchased permit to your personal computer in the event you need an extra copy. Permits will also continue to be available at local permit vendors. Because e-Permits are printed on regular paper, it is best to stick them in a sandwich bag to protect them from the elements. The permit is designed with dates around the outside edge. When you harvest your deer or turkey, void the

permit immediately by notching the month and date of harvest. The voided permit should then be attached to the turkey or deer using wire, twine, tape or a rubber band. The final step will be Telechecking your animal. A simple way to remember these steps is "bag it, notch it, tag it, check it."

Like many people, I find change can sometimes be challenging. I argued against Telecheck at its conception. I thought it was impersonal. However, hunters have found that Telecheck saves them time and expensive fuel. Agents have discovered new ways to detect game law violations by utilizing Telecheck. Telecheck has worked out to be a great change for our state. I hear concerns from hunters about the new permit system. I'm confident we will soon see the advantages of e-Permits, just like we have with Telecheck. More information about e-Permits is available at www.mdc.mo.gov/node/10900.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Missouri Conservation Department

2011 Permit

Conserv # 014264733

Hunter Cert #123456

HUNTER N FISHER
PO BOX 180
JEFFERSON CITY, MO 65802

DOB: 03/02/1986 Gender: M
Height: 6'00" Weight: 250 lbs
Hair: Blond Eyes: Blue

TELECHECK ID: G337323653

055 Resident Spring Turkey Hunting \$17.00

SPRING TURKEY

Permit #033723653 Terminal ID: 3498808
Vendor: 27432 02/17/2011 14:08:45

I agree to comply with the wildlife code, to present this permit upon request to any officer authorized to enforce wildlife laws, and to allow such officer to inspect wildlife in possession to determine compliance with rules.

Tammy Pierson is the conservation agent for Ray County. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.

WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on the inside of this back cover.



Subscribe online

www.MissouriConservation.org/15287

Free to Missouri households

